FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: AIR-20-17
SUBJ: Air Conditioning – Cabin Pressure Control System **Date:** November 3, 2020

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises owners and operators of **Yaborã Indústria Aeronáutica S.A. (Type Certificate Previously Held by Embraer S.A.) Model EMB-135 airplanes and Model EMB-145, -145ER, -145-MR, -145-LR, -145-XR, -145MP, and -145EP airplanes** of failure of both cabin pressurization systems during flight.

Background

The FAA has received information that a Model EMB-145LR airplane experienced failure of both cabin pressurization systems during flight, at 16,000 feet above mean sea level (MSL). The automatic system failed first, and when the manual backup system was selected it also failed. This condition required an emergency landing at the nearest suitable airport. The crew was unable to open the main entry door after landing, and suspected the aircraft was still pressurized. Depressurization eventually occurred and passengers were deplaned. After the incident, the Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, issued Brazilian Special Airworthiness Bulletin (BEA) 2020-09, dated August 10, 2020.

An ongoing investigation of both pressurization system failures revealed preliminary findings, which indicate that a faulty manual pressurization controller knob may have prevented the crew from setting the manual pressurization system correctly. This could result in the aircraft having a cabin pressure higher than the ambient pressure when landing at the airport and consequently could prevent the opening of the main entry door.

Recommendations

The FAA recommends that all owners and operators of the airplanes identified above incorporate the maintenance actions outlined in Yaborã Indústria Aeronáutica S.A. AMM – Aircraft Maintenance Manual – Maintenance Practices and Procedures (MPP) - Task 21-31-00-700-801-A --PRESSURIZATION CONTROL SYSTEM - OPERATIONAL CHECK IN MANUAL MODE, at the earliest opportunity, and:

1- Visually inspect the manual pressure controller knob and panel face markings in the cockpit for obscured/erased paint markings. Ensure that the knob pointer line and panel face markings are clearly visible and legible. Panel face or controller knob obscured/erased markings can prevent the crew to accurately set the manual pressurization system;
2- Do a check of the manual controller knob (*PNs 912R0201 or 912R0301, see Figure 1 below), as follows:
    a. Make sure that the engines and auxiliary power unit (APU) are not in operation;
    b. Turn the manual controller knob fully clockwise. When the knob pointer line approaches the 4 o'clock position ("UP" marking on the panel face), a detent spot (notch) should be felt in the movement of the knob;

c. Turn the manual controller knob fully counterclockwise. When the knob pointer line approaches the 8 o'clock position ("DN" or "DN AUTO" green marking on the panel face, depending on PN 912R0201 or 912R0301, respectively), a detent spot (notch) should be felt in the movement of the knob.

If unreadable/obscured/erased markings are identified in the visual inspection, or if too much force is required to turn the knob, or if either of the detent spots are not felt, replace the part.

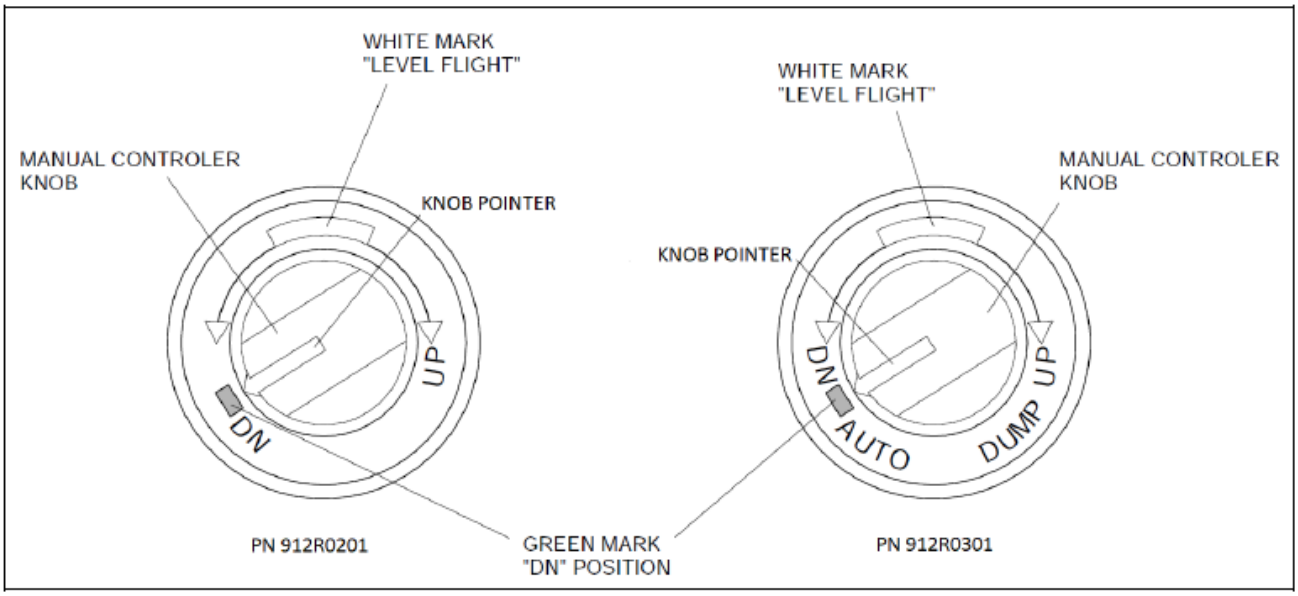

Figure 1

*Reference document: Yaborã Indústria Aeronáutica S.A. IPC – Illustrated Parts Catalog – 21-31-02.

For Further Information Contact

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For Related Service Information Contact

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